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PARENTING PRACTICES AND MOTHERS BEHAVIOURAL AND DEMOGRAPHIC FACTORS INFLUENCING THEIR 2 YEAR OLD CHILD'S PHYSICAL ACTIVITY



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BACKGROUND



Early life factors are important in developing and shaping physical activity (PA).

Mothers have a crucial role in their children's PA in the early years of life.

Identifying maternal factors associated with PA during the early years is a necessary first step to develop effective interventions.

AIM

Identify maternal factors that influence physical activity behaviour in 2 year old children.

METHODS



1214 participants (mother and child) were examined when the child was approximately 2 years of age from the BiB longitudinal multi-ethnic birth cohort study.

Outcome variable = children meeting guidelines of 180 minutes of total physical activity (TPA)
Early Years Physical Activity Questionnaire (EY-PAQ).



Multiple **predictor variables** across the socio-ecological model were measured, including parental practices.

Significant difference s found using bivariate analysis (Pearson Chi-Square) were further analysed by hierarchical multivariate logistic regression models.

Sex, age and ethnicity were controlled for and the odds ratio (OR) and 95% confidence interval (CI) were calculated.

RESULTS



651 (78%) children met PA guidelines; 178 (22%) did not.

Positive associations were found for (Table 1):
1) <1hour maternal TV/DVD; 2) mother being sedentary;
3) encouragement to play active games 5-6 times a week and everyday; 4) limiting playing outside everyday.

Negative associations were found for (Table 1):
1) How often children played in the garden/yard.

Table 1: Final Logistic model reporting predictors of 2 year old children meeting PA guidelines.

Predictor Variables	Meeting physical activity guidelines			
	B	Odds Ratio	95% CL	P
MOTHERS BEHAVIOURS				
No. Hours TV/DVD pre 6pm Weekday				
None (reference)		1.00		
less than 1 hour	-0.38	0.69	0.42-1.12	0.13
1-2 hours	0.17	1.18	0.69-2.02	0.54
2-3 hours	0.01	1.01	0.54-1.87	0.98
3-4 hours	0.80	2.23	0.47-10.60	0.31
More than 4 hours	0.81	2.25	0.25-20.64	0.47
No. Hours TV/DVD post 6pm Weekend				
None (reference)		1.00		
less than 1 hour	0.92	2.51	1.04-6.05	p < 0.05
1-2 hours	0.19	1.21	0.68-2.15	0.51
2-3 hours	-0.18	0.84	0.47-1.49	0.55
3-4 hours	-0.15	0.86	0.44-1.69	0.66
More than 4 hours	0.15	1.16	0.43-3.16	0.77
PA level (IPAQ)				
Active (meeting guidelines) (reference)		1.00		
Inactive (not meeting guidelines)	0.27	1.30	0.74-2.31	0.36
Sedentary (no activity)	0.54	1.72	1.00-2.98	p < 0.05
RULES AND BELIEFS				
Encouraged child to play active games in last month				
Never (reference)		1.00		
1-3 times a month	0.14	1.15	0.67-1.98	0.61
Once a week	0.24	1.27	0.44-3.66	0.66
2-4 times a week	0.21	1.23	0.56-2.69	0.60
5-6 times a week	0.45	1.57	0.94-2.64	p < 0.05
Everyday	0.95	2.59	0.96-7.01	p < 0.05
Limited playing outside in last month				
Never (reference)		1.00		
1-3 times a month	0.42	1.52	0.66-3.49	0.32
Once a week	0.13	1.14	0.55-2.34	0.73
2-4 times a week	0.35	1.43	0.85-2.38	0.18
5-6 times a week	0.66	1.94	0.82-4.63	0.13
Everyday	0.87	2.40	1.35-4.25	p < 0.05
Believe its important to play outside				
Agree (reference)		1.00		
Indifferent	-0.17	0.85	0.09-8.08	0.88
Disagree	0.68	1.98	0.54-7.26	0.30
ENVIRONMENTAL				
Often played in the garden/yard				
Never (reference)		1.00		
1-3 times a month	-0.43	0.65	0.31-1.36	0.25
Once a week	-0.50	0.61	0.25-1.47	0.27
2-4 times a week	-1.09	0.34	0.17-0.65	p < 0.05
5-6 times a week	-1.29	0.27	0.13-0.58	p < 0.05
Everyday	-1.27	0.28	0.15-0.54	p < 0.05
* Controlled for sex, ethnicity and age R2 - 0.09 (Cox & Shell); 0.13(Nagelkerke); 0.09 (Hosmer & Lemeshow)				

CONCLUSIONS



Variables across the socio-ecological model were associated with meeting PA guidelines; supporting PA is a multi-domain complex behaviour.

Children were more active when mothers were sedentary and when they spent less time outside in the garden/yard.

Future research within this unique bi-ethnic population using objective measures is required.